Actions to support No Plastics in Nature

Link to opening video https://youtu.be/Ar8t3fbi-64

Actions to support No Plastics in Nature

Global Plastics Campaign
Cross cutting support to all work-streams

Business Model Innovation - PACT

16:00 : Introduction
16:10 : Cloversoft
16:20 : AMT
16:40 : Q&A

Plastic Smart Cities

16:45 : Introduction
16:52 : Sharing from Vietnam

Global Plastic Policy - Extended Producer Responsibility

17:05 : EPR
17:20 : Q&A

WWF Market Transformation - PACT

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PACT
No Plastics in Nature
A WWF INITIATIVE FOR A CIRCULAR ECONOMY AND NO PLASTICS IN NATURE BY 2030

Introducing PACT

Stefanie Beitien
Head of Market Transformation, WWF-Singapore

Overview of PACT

With PACT, we provide solutions and resources, empowering businesses to reduce their plastic footprint, based on the PACT Guiding Principles.

1) Individual Commitments
Setting circular economy goals with individual companies

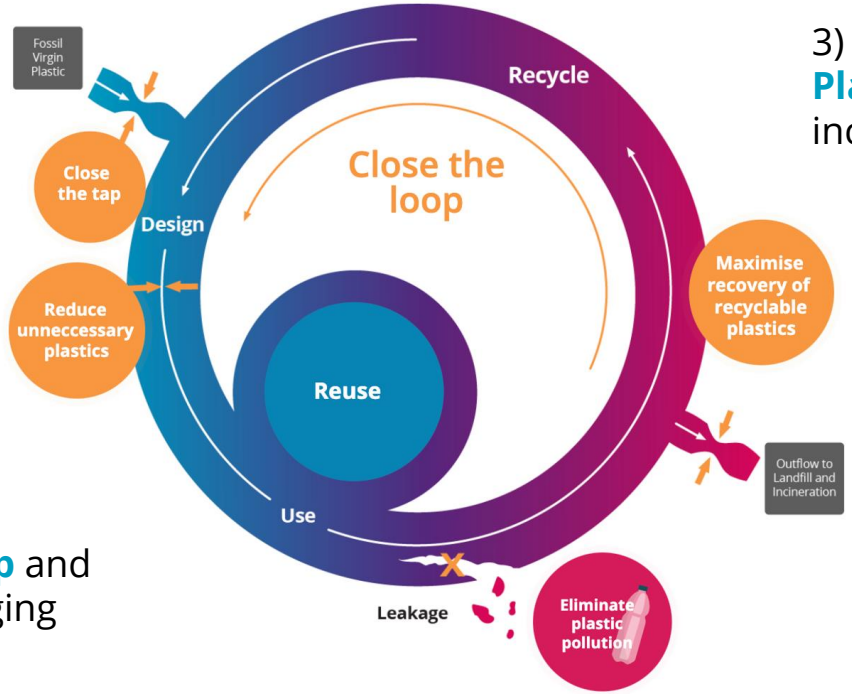
2) Sectoral Collaboration
Collaborating with entire sectors on plastic action

3) Expertise
Provision of Guides, Tools and Resources

More on https://plastic-action.asia/

PACT Guiding Principles

1) We need to **Close the Tap** and switch to alternative materials that have the least environmental impact



3) We need to **Eliminate Plastic Pollution** by increasing recycling rates

2) We need to **Close the Loop** and rely less on single-use packaging

Sectoral Collaboration: Evidence based reduction

- What are the low hanging fruits to drive reduction that your sectors can collaborate on?
- Awareness, education and choice - aiming towards a lasting impact and reduction are key
- POS charging for single-use plastic items is highly effective - it leads to an immediate reduction of non-essential items, allows consumer choice, and promotes the wanted behaviour of BYO.
- Replacement via the **Alternative Materials Tool**

Eco-Business

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Home > News > Waste Management

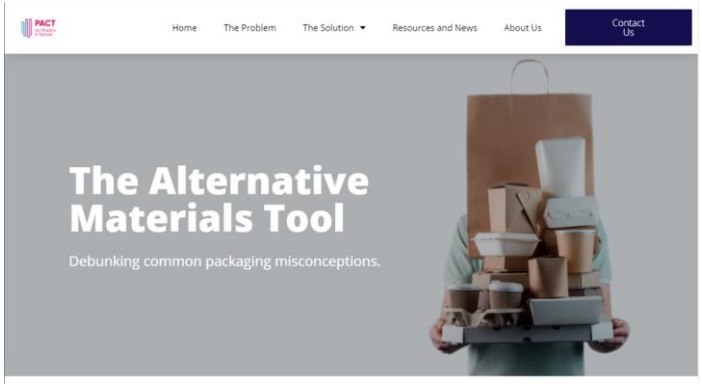
Singapore university's plastic straw ban sparks backlash from students: 'I've been greatly inconvenienced'

National University of Singapore's ban on plastic straws on campus has been met with heated opposition from some students. But supporters of the ban have responded with a way to promote eco-consciousness among convenience-minded young Singaporeans.

Guides, Tools and Resources

- Tools such as the **Alternative Materials Tool** for single-use packaging
- Industry guidelines such as the **Reducing Plastic Use in Fashion** publication
- Research projects
- Industry-specific engagement and transformation via sectoral roundtables
- Fund conservation projects

https://plastic-action.asia/resources-and-news/



Individual Commitments:
PACT wins over the last year

Straws 2,628,000	Stirrers 427,000	Single Use Cups 450,000
Cup Lids 299,000	Cup Holders 1000	Food Containers 1,266,000
Food Container Lids 448,000	Takeaway Bags 1,690,000	Water Bottles 1,360,000
Cutlery 554,000	Sauce cups, bottles or sachets 1,038,000	Cotton Buds 313,000
Soap & Shampoo Bottles 358,000	Bin Liners 1,030,000	Laundry Bags 285,000
Newspaper Bags 4,000	Shower Caps 230,000	Toothbrushes 65,000
Combs 65,000	Slipper Wrappers 100,000	

More than 12 million pieces of plastic packaging and items have been eliminated by 22 PACT Champions.

Full impact report at plastic-action.asia

Individual Commitments:
PACT Champions in Singapore

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HOSPITALITY

PONTIAC LAND
PAN PACIFIC HOTELS GROUP
A Member of UOL Group
GRAND HYATT
RAMADA BY WYNDHAM SINGAPORE AT ZHONGSHAN PARK
Days Hotel BY WYNDHAM Singapore at Zhongshan Park
Hilton
THE FULLERTON HERITAGE SINGAPORE
ACCOR

FOOD AND BEVERAGE

SALADSTOP!
COMNAM VIETNAMESE STREET EATS
NamNam GO!
NamNam
Wildlife Reserves Singapore Group
JURONG BIRD PARK
NIGHT SAFARI
River Safari
Singapore Zoo
TADCASTER HOSPITALITY
Udders ICE CREAM
PASTAMANIA CASUAL DINING
KRAFTWICH by SWISSBAKE
PIZZA EXPRESS
spa esprit group
The Lo & Behold Group

MANUFACTURING

H&M
Cloversoft
evian NATURAL MINERAL WATER

PROPERTY MANAGEMENT

lendlease

E-COMMERCE

perromart

Fireside Chat

Angela Sim
Founder
Cloversoft

Stefanie Beitien
Head of Market Transformation

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If not plastic,
What material should I choose?

Is packaging necessary?

Primary packaging	➔ To contain the product ➔ To ensure the product's shelf-life
Service packaging	➔ Used only at point-of-sale
Secondary packaging	➔ For ease of handling and transport
Tertiary packaging	➔ To prevent the product from damage during handling and transport

Packaging that do not have a clear function:

- ➔ Overpackaging
- ➔ Aesthetic/ Branding

Problems with single-use packaging

- Short packaging shelf life
- Low functionality
- High waste generation

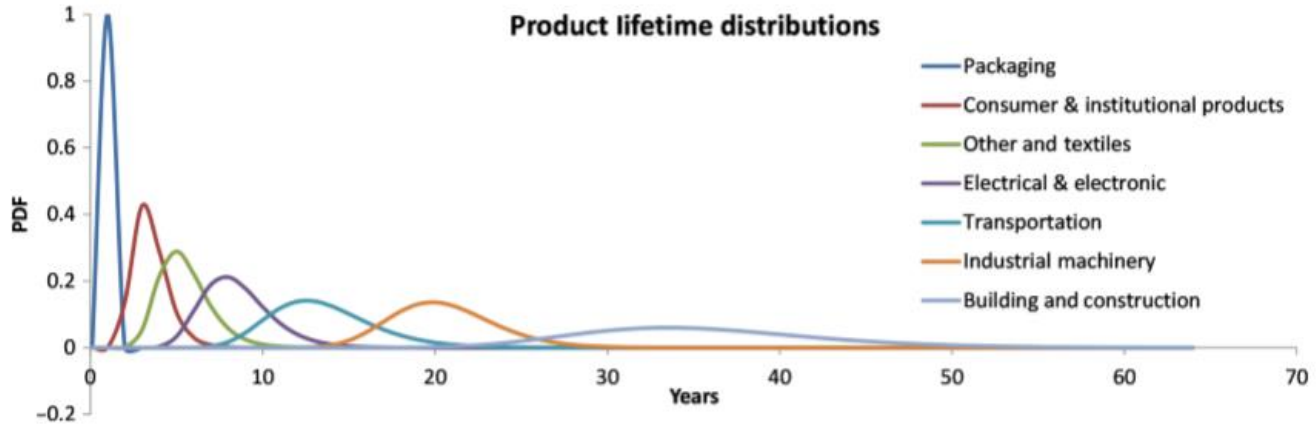


Fig. 1. Product lifetime distributions for the eight industrial use sectors plotted as log-normal probability distribution functions (PDF). Note that sectors other and textiles have the same PDF.

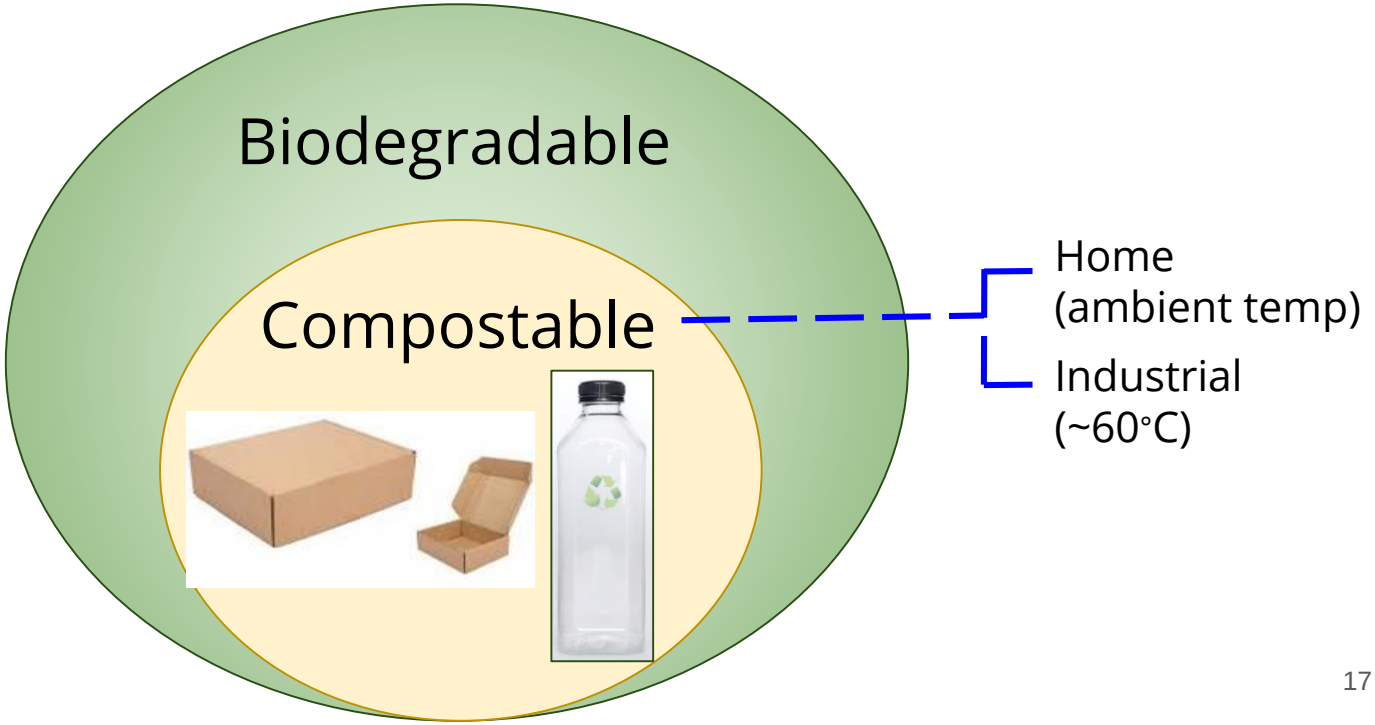
Source: Geyer et al. (2017) Production, use, and fate of all plastics ever made, Science Advances

For every material that is extracted, used for consumption, and eventually discarded, an impact is exerted on the environment. We must avoid transferring the environmental cost from one material to another.

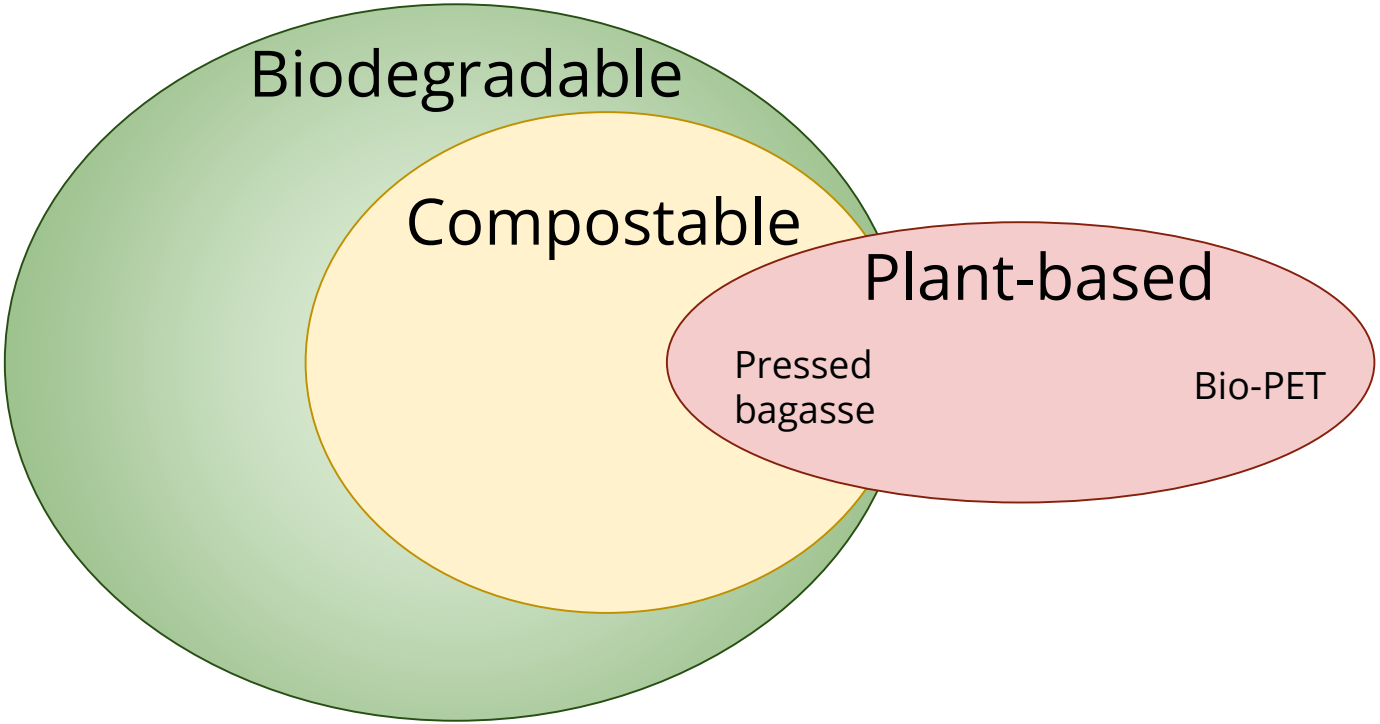
Misconception of materials

- Biodegradable plastic (or material in general) is **the solution** to plastic pollution

Misconception of materials



Misconception of materials



Waste management of country of use

- Factors to consider when selecting material
  - Region of disposal: types of infrastructure available (e.g. a resort island vs a megacity)
    - What is the main disposal technology?
    - Is recycling or composting plants available?
    - Even for compostable packaging, a proper collection system must be in place
    - Without collection for composting, the packaging is still a litter
  - Presence of local recycling plant
    - Recycled content

Certifications

Certification is the process of certifying the product passed the intended performance or quality assurance tests. The certification bodies can be formed by a group of like-minded people, it does not have to be government related.

- Paper/ Recycled paper: Forest Stewardship Council (https://fsc.org/en)
- Cotton: Better Cotton Initiative (https://bettercotton.org/)
- Biodegradable/ compostable plastics:
  - Australasian Bioplastics Association (https://bioplastics.org.au/certification/)
  - TUV Austria (https://www.tuv-at.be/green-marks/certifications/)
  - DIN CERTCO (https://www.dincertco.de/din-certco/en/)
  - GreenPla Japan (http://www.jbpaweb.net/english/)
  - Etc
- Recycled material: DIN CERTCO

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Introducing the Alternative Materials Tool

The idea behind AMT

- The Alternative Materials Tool (AMT) is a research project commissioned by WWF PACT for businesses to:
  - navigate the complex sustainability trade-offs of selecting materials → simple to use but **science-based solution**
  - identify suitable materials with the **least environmental impact** for single-use packaging decisions
  - minimize the impact of its single-use packaging through alternative materials that are more environmentally benign, **without transferring the environmental cost to another system.**

- The tool is specific to the context of waste management systems in Malaysia, the Philippines, Singapore and Thailand.

Examples of Multi-Layered Material

Beverage carton is the only exception in AMT.

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LIVE DEMO

Introducing the Alternative Materials Tool

Dr Yvonne Lin

Materials Expert, WWF-Singapore

https://plastic-action.asia/alternative-materials-tool/

Mono-material’s role in recyclability

- Materials have to be segregated before recycling
  - Multi-component / multi-layered is inefficient due to the need to dissemble
  - More effort, either manual, or sometimes leading to more energy required

- Multi-layered materials that cannot be efficiently separated cannot be recycled
  - Leads to downcycle of particle board

- Different plastics type have to be segregated too and it is difficult to differentiate them

What can be learnt from AMT

- Mono-materials are encouraged for single-use packaging
  - Beverage carton ranking
  - Dissemble and sorting
  - Specialised facilities

- Biodegradable materials are great
  - Depends on the country of disposal
  - Availability of infrastructure

- Select recycled material over virgin material to close the loop
  - Lower environmental footprint at the production stage
  - Reduce the need to extract virgin material

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